



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,864	07/14/2003	Hiroshi Shigetaka	9281/4602	6963
7590	04/19/2006		EXAMINER	
Brinks Hofer Gilson & Lione			HOLTON, STEVEN E	
P. O. Box 10395				
Chicago, IL 60610			ART UNIT	PAPER NUMBER
			2629	
DATE MAILED: 04/19/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/618,864	SHIGETAKA, HIROSHI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Steven E. Holton	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

1) Responsive to communication(s) filed on 27 January 2006.

2a) This action is FINAL.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

4) Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-10 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 1/27/2006. Claims 1-10 are currently pending in the application. An action follows below:

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerpheide et al. (USPN: 6680731), hereinafter Gerpheide in view of Taylor et al. (USPgPub: 2003/0025679), hereinafter Taylor.

Regarding claims 1, 4, and 8, which are drawn to similar inventions, Gerpheide discloses a touchpad input device with electrodes formed on a flexible substrate and bonded to the rear surface of an insulating support plate (Fig. 4; col. 5, lines 7-18, col. 5, lines 41-54, col. 5, line 59 – col. 6, line 13). The Examiner notes Gerpheide discusses attaching the flexible touch input device to the rear of a keyboard case and by attaching it to the rear of the case surface a support surface beneath the touch input device is no longer needed (col. 5, lines 59-61). However, Gerpheide does not expressly disclose providing the X and Y electrode layers on a single substrate but rather on two substrates held close together (Fig. 4).

Taylor discloses a touch pad device with the X and Y electrode layers disclosed on the same flexible substrate (Fig. 5, elements 60, 62, and 66; paragraphs 62, 64 and 65).

At the time of invention it would have been obvious to one skilled in the art to combine the teachings of Gerpheide and Taylor to produce a device as specified in claims 1, 4, and 8. The motivation for doing so is one of design choice, as discussed by Taylor in paragraphs 63 and 64, methods for providing the X and Y electrodes on two substrates and one substrate are possible for the application but Taylor chooses to utilize a single substrate. Thus, it would have been a matter of design choice to utilize a two substrate touch sensor or a single substrate touch sensor with a flexible substrate to produce a device as specified in claims 1, 4, and 8.

Regarding claims 2, 5, and 10, Gerpheide discloses fitting the touch sensor to the underside of a curved surface such as the wrist rest of a keyboard (col. 5, lines 12-14). This would be a recessed area of the surface to hold the input sensor area.

Regarding claims 7 and 9, Gerpheide discloses fitting the touch sensor on the underside of arcuate surfaces (col. 5, lines 16-18).

Regarding claims 3 and 6, Gerpheide discloses highlighting the area on the housing or support surface that is above the touch area so that a user is able to determine where the touch sensor is located (col. 5, line 64 – col. 6, line 2).

***Response to Arguments***

3. Applicant's arguments, see pages 4-7, filed 1/27/2006, with respect to the rejection(s) of claim(s) 1-3 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art.

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shigetaka et al. (USPgPub: 2001/0024194), which has a common inventor and assignee to the current application, provides X and Y electrodes in a multilayer arrangement on a flexible substrate as part of a touch input sensor. Howell et al. (USPN: 6096984) discloses a flexible touch sensor able to take different non-planar shapes based on the support structure placed underneath the touch sensor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571) 272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steven E. Holton  
April 6, 2006  
Division 2629

AMR A. AWAD  
PRIMARY EXAMINER

